

VICINITY MAP

Zone Atlas Page:  
**K-16-Z**



LOCATION MAP

#### EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION; HE SHALL ENSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SUBJECT SITE AND ENTERING ADJACENT PROPERTIES.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SUBJECT SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREET RIGHT-OF-WAYS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT FROM PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SUBJECT SITE AND DEPOSITED THEREON.

#### CONSTRUCTION NOTES:

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 260-1990 FOR THE ACTUAL FIELD LOCATION OF THE EXISTING SURFACE OF SUB-SURFACE UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION(S) OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN PUBLIC STREET RIGHT-OF-WAY(S) SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE/BERNALILLO COUNTY STANDARDS AND PROCEDURES.

#### LEGEND:

TOP OF CURB ELEVATION =  $TC = 82.50$   
CURB FLOWLINE ELEVATION =  $FL = 82.00$   
EXISTING SPOT ELEVATION =  $\bullet \leftarrow 81.1$   
EXISTING CONTOUR ELEVATION =  $--- 81.0 ---$   
PROPOSED SPOT ELEVATION =  $\blacktriangle \leftarrow 82.50$   
PROPOSED CONTOUR ELEVATION =  $--- 81.1 ---$   
PROPOSED OR EXISTING CONCRETE SURFACE =  $\text{---} \text{---} \text{---}$   
EXISTING FENCE LINE =  $\times \times \times \times$  (OR REMOVED)

#### GENERAL NOTES:

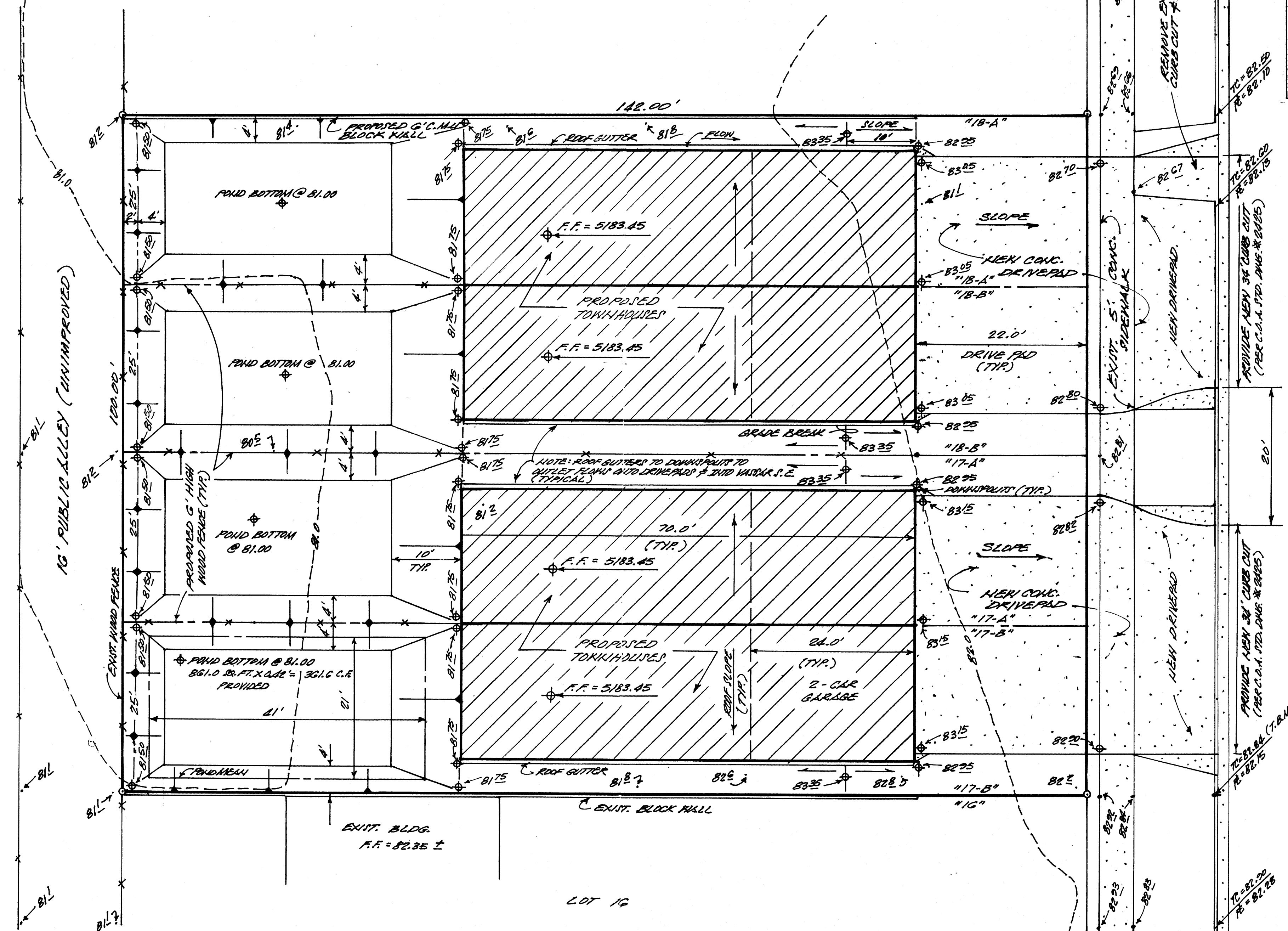
- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD OTHER THAN SHOWN HEREON.

#### LEGAL DESCRIPTION:

Lots Seventeen (17) and Eighteen (18), Block Twenty - Three (23), University Heights Addition, Albuquerque, New Mexico.

#### BENCHMARK REFERENCE:

ACS Station "5-K16A", Elevation = 5171.38; T.B.M. as shown on the plan hereon.



\* POND VOLUME REQUIRED (EACH LOT):  
WEIGHTED  $\Delta S = (0.53) \times (0.00) + (0.70) \times (0.00) + (1.13) \times (0.00) + (2.12) \times (0.00) / 0.035 = 1.29 \text{ IN.}$   
 $V_{100-360} = (1.29) \times (0.035) / 12 = 0.00376 \text{ AG. FT.} = 163.9 \text{ C.F.}$   
POND VOLUME PROVIDED:  $21' \times 41' = 861.0 \text{ SQ. FT.} \times 0.50' = 430.5 \text{ C.F.} - 163.9 \text{ C.F.} = 266.6 \text{ C.F. FREEBOARD}$

#### A.1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

TABLE A-1. PRECIPITATION ZONES

ZONE	LOCATION
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40, and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40, and East of the East boundary of Range 4 East, South of Interstate 40

TABLE A-1A. PEAK INTENSITY (IN/HR at  $t_r=4.2$  hour)

Zone	Intensity 100-YR (2-YR, 10-YR)
1	4.70 (1.84, 3.14)
2	5.05 (2.04, 3.41)
3	5.38 (2.21, 3.65)
4	5.61 (2.34, 3.83)

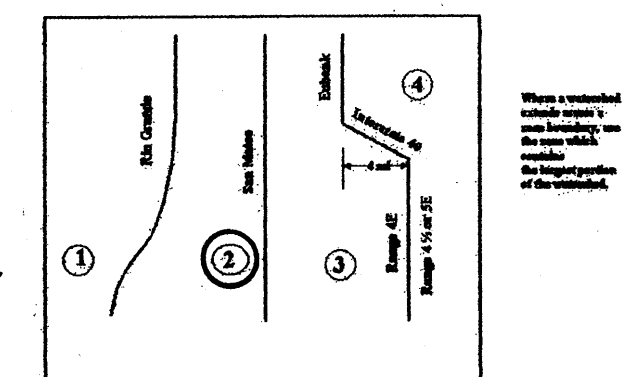


TABLE A-4. LAND TREATMENTS

Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unlined Arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil uncompacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds, and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

Most watersheds contain a mix of land treatments. To determine proportional treatment, measure respective subareas. In lieu of specific measurement for treatment D, the areal percentages in TABLE A-5 may be employed.

TABLE A-9. PEAK DISCHARGE (cfs/acre)

Zone	Treatment (2-YR, 10-YR)			
	A	B	C	D
1	1.29 (0.00, 0.24)	2.03 (0.33, 0.76)	2.87 (0.47, 1.49)	4.37 (1.69, 2.89)
2	1.56 (0.00, 0.38)	2.38 (0.08, 0.95)	3.14 (0.60, 1.71)	4.70 (1.86, 3.14)
3	1.87 (0.00, 0.58)	2.60 (0.21, 1.19)	3.45 (0.78, 2.009)	5.02 (2.04, 3.39)
4	2.20 (0.05, 0.87)	2.92 (0.38, 1.45)	3.73 (1.00, 2.26)	5.25 (2.17, 3.57)

#### Drainage Comments:

As shown on the Vicinity Map hereon, the subject site is located on the west side of Vassar Drive S.E. and two (2) blocks south of Central Avenue in the City of Albuquerque, Bernalillo County, New Mexico, (City Zone Atlas Map "K-16-Z").

The subject site, is presently developed with old residential units; the proposed plan as shown hereon, is to construct four (4) townhome units on said property together with associated improvements thereon.

The subject site, 1.) Does not lie within a designated floodplain, nor does it have downstream flooding conditions (RE: F.E.M.A. Panel of 825), 2.) Does not accept offsite flows from adjacent properties, 3.) does not contribute to the offsite flows of adjacent properties, 4.) does not lie adjacent to a natural or artificial water course, 5.) is allowed free discharge of developed flows into the adjacent street right-of-ways, (these flows do not and will not have an adverse impact to downstream properties).

#### Calculations:

Per Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque, Bernalillo County, New Mexico.

Site Area: 0.33 acre

Precipitation Zone: Two (2)

Peak Intensity: In./Hr. at  $T_c$  = Twelve (12) minutes, 100-Yr.-6Hr. = 5.05

Land Treatment Method for Calculations of "Qp", Tables A-8 & A-9.

"Land Treatment Factors", Table 4-A.

#### EXISTING CONDITIONS:

TREATMENT	AREA/ACRES	FACTOR	CFS
C	0.19	X	3.14 = 0.60
D	0.14	X	4.70 = 0.66

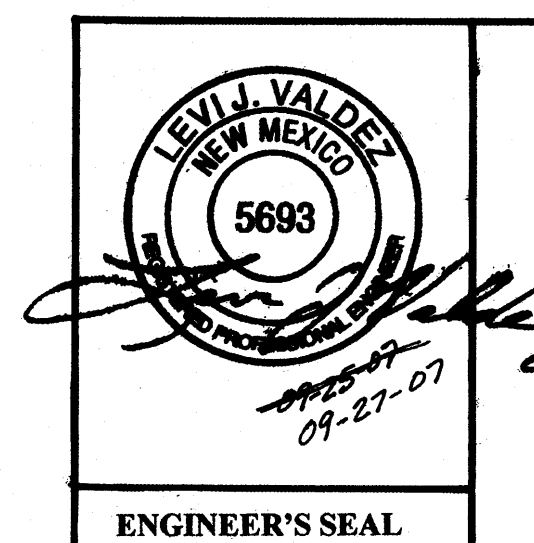
"Qp" = 1.26 CFS

#### PROPOSED DEVELOPED CONDITIONS:

TREATMENT	AREA/ACRES	FACTOR	CFS
C	0.16	X	3.14 = 0.50
D	0.17	X	4.70 = 0.80

"Qp" = 1.30 CFS

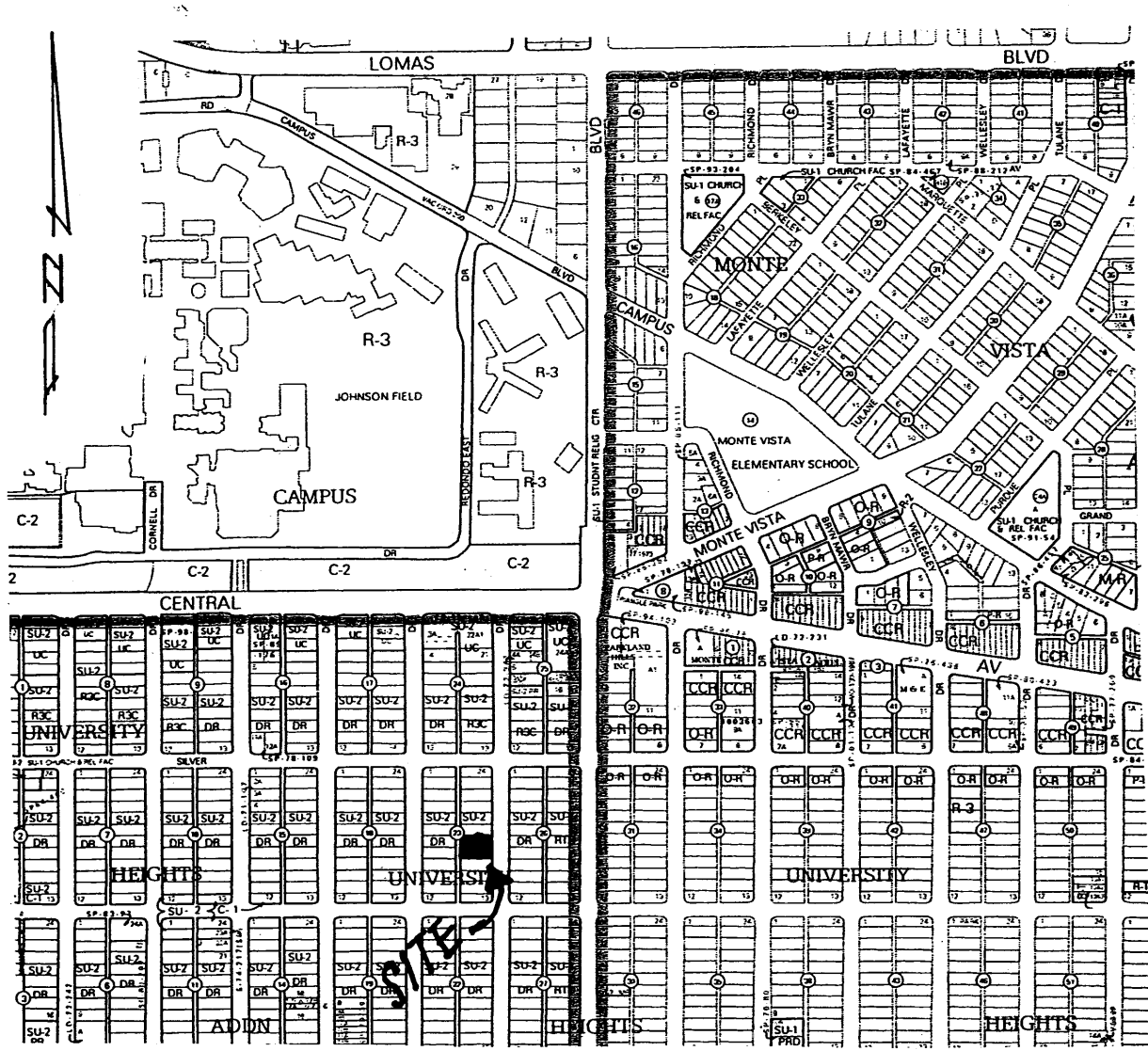
INCREASE = 0.04 CFS



ENGINEER'S SEAL

A PROPOSED  
GRADING AND DRAINAGE PLAN  
FOR PROPOSED STRUCTURES AT  
**213 VASSAR DRIVE S.E.**  
ALBUQUERQUE, NEW MEXICO  
JULY, 2007





VICINITY MAP



LOCATION MAP

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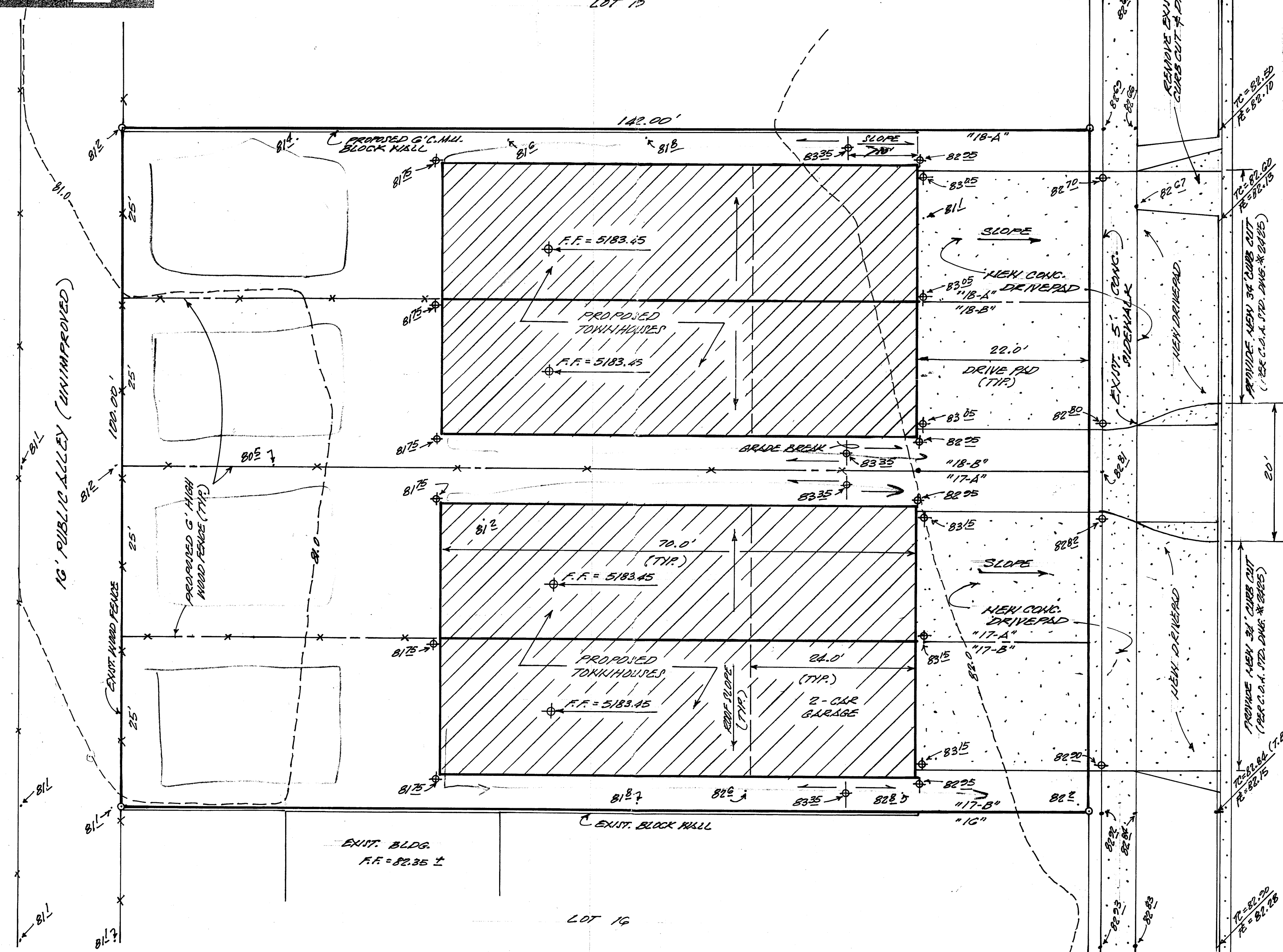
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213 VASSAR DRIVE S.E.

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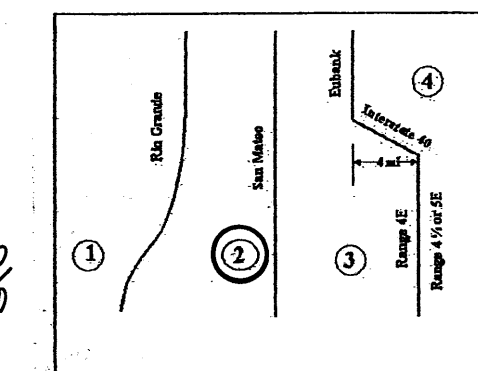


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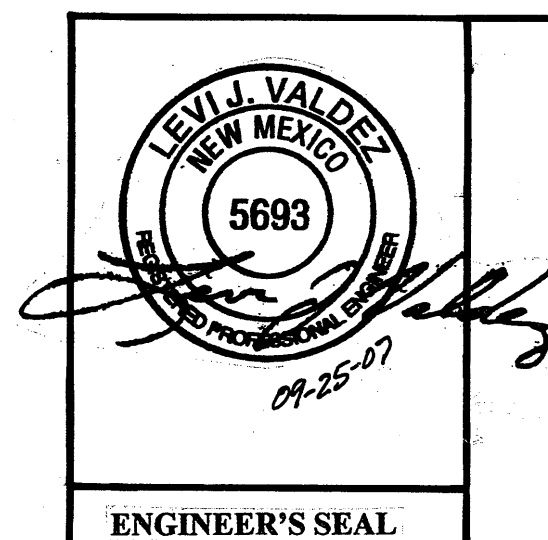
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